

Title (en)

Oscillator phase noise reduction by self tuning filter and noise feedback

Title (de)

Oszillator-Phasenrauschverringerng durch Selbsteinstellung der Filter- und Rauschrückmeldung

Title (fr)

Réduction de bruit de phase d'oscillateur par un réglage automatique du filtre et réponse sonore

Publication

**EP 2144370 B1 20120201 (EN)**

Application

**EP 08012269 A 20080708**

Priority

EP 08012269 A 20080708

Abstract (en)

[origin: EP2144370A1] Method to reduce the phase noise in an oscillator by means of a self tuning filter and/or noise feedback. Self tuning of the filter is achieved by a phase locked loop using the phase shift generated by the filter if an offset occurs. The delay caused by the filter is used to generate a feedback signal for further noise reduction The noise feedback uses the delay caused by the filter and locks the oscillator.

IPC 8 full level

**H03J 3/20** (2006.01); **H03L 7/081** (2006.01)

CPC (source: EP US)

**H03J 3/00** (2013.01 - EP US); **H03J 3/20** (2013.01 - EP US); **H03L 7/02** (2013.01 - EP US); **H03L 7/1075** (2013.01 - EP US);  
**H03J 2200/08** (2013.01 - EP US)

Cited by

CN111095797A; US9094133B2; US9088369B2; WO2016014130A3; US9330214B2; US9917548B2; US9979372B2; US10224872B2;  
US10574183B2; US10666191B2; US10958214B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**EP 2144370 A1 20100113**; **EP 2144370 B1 20120201**; AT E544236 T1 20120215; US 2011204936 A1 20110825; US 8446222 B2 20130521;  
WO 2010005542 A1 20100114

DOCDB simple family (application)

**EP 08012269 A 20080708**; AT 08012269 T 20080708; US 2009003954 W 20090706; US 200913002901 A 20090706